

15 DAY LANGUAGE
EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
CALIFORNIA ENERGY COMMISSION

REGARDING PROPOSED CHANGES TO
BUILDING ENERGY EFFICIENCY STANDARDS
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 1 AND PART 6

LEGEND FOR EXPRESS TERMS

1. Energy efficiency standards language added in 45-day Express Terms: All such language appears underlined.
2. Energy efficiency standards language deleted in 45-day Express Terms: All such language appears in ~~strikeout~~.
3. Energy efficiency standards language added in 15-day Express Terms: All such language appears in double underline.
4. Energy efficiency standards language deleted in 15-day Express Terms: All such language appears in ~~double strikeout~~.
5. Energy efficiency standards language added to 15-day Express Terms: All such language appears **shaded**.

EXPRESS TERMS

Part 1, § 10-102 - DEFINITIONS

Place after the definition for MANUFACTURED DEVICE:

NFRC 100 is the National Fenestration Rating Council document entitled "NFRC 100: Procedure for Determining Fenestration Product U-factors." (1997 or November 2002; NFRC 100 includes procedures for site-built fenestration formerly included in a separate document, NFRC 100-SB)¹

NFRC 200 is the National Fenestration Rating Council document entitled "NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence." (1995 or November 2002)²

NFRC 400 is the National Fenestration Rating Council document entitled "NFRC 400: Procedure for

¹ Either the 1997 edition or the November 2002 edition may be used for product rating prior to April 1, 2004. **Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004, only the November 2002 edition may be used for new product rating.**

² Either the 1995 edition or the November 2002 edition may be used for product rating prior to April 1, 2004. **Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004, only the November 2002 edition may be used for new product rating.**

Determining Fenestration Product Air Leakage.” (1995 or January 2002)³

Authority: Section 25402.1, Public Resources Code.
Reference: Section 25402.1, Public Resources Code.

Part 1, § 10-111 (a)1.B.

The “NFRC Rating Procedure” as used in this subparagraph B means ~~the National Fenestration Rating Council's NFRC 100: Procedure for Determining Fenestration Product U-Factors, (1997)~~ also known as “NFRC 100,” incorporated herein by reference.

Authority: Section 25402.1, Public Resources Code.
Reference: Section 25402.1, Public Resources Code.

Part 1, § 10-111(a)1.C.

The “NFRC Rating Procedure” as used in this subparagraph C means ~~the National Fenestration Rating Council's NFRC 100-SB, Procedure for Determining Site-Built Fenestration U-Factors and Thermal Performance Characteristics (2000)~~, also known as NFRC 100-SB, incorporated herein by reference.

Authority: Section 25402.1, Public Resources Code.
Reference: Section 25402.1, Public Resources Code.

Part 1, § 10-111(a)1.E.

The “NFRC Rating Procedure” as used in this subparagraph E means ~~the National Fenestration Rating Council's NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence (1995)~~, also known as “NFRC 200,” or for vertical glazing that is site-built ~~the National Fenestration Rating Council's NFRC 100-SB, Procedure for Determining Site-Built Fenestration U-Factors and Thermal Performance Characteristics (2000)~~, also known as “NFRC 100-SB,” incorporated herein by reference.

Authority: Section 25402.1, Public Resources Code.
Reference: Section 25402.1, Public Resources Code.

Part 6, § 101(b)

Place the following three definitions after the definition for NEWLY CONDITIONED SPACE:

NFRC 100 is the National Fenestration Rating Council document entitled “NFRC 100: Procedure for Determining Fenestration Product U-factors.” (1997 or November 2002; NFRC 100 includes procedures for site-built fenestration formerly included in a separate document, NFRC 100-SB)⁴

³ Either the 1995 edition or the January 2002 edition may be used for product rating prior to April 1, 2004. Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004, only the January 2002 edition may be used for new product rating.

⁴ Either the 1997 edition or the November 2002 edition may be used for product rating prior to April 1, 2004. Product

NFRC 200 is the National Fenestration Rating Council document entitled “NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence.” (1995 or November 2002)⁵

NFRC 400 is the National Fenestration Rating Council document entitled “NFRC 400: Procedure for Determining Fenestration Product Air Leakage.” (1995 or January 2002)⁶

~~**NFRC 100** is the National Fenestration Rating Council document entitled “NFRC 100: Procedure for Determining Fenestration Product U-factors.”~~

~~**NFRC 200** is the National Fenestration Rating Council document entitled “NFRC 200: Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence.”~~

~~**NFRC 400** is the National Fenestration Rating Council document entitled “NFRC 400: Procedure for Determining Fenestration Product Air Leakage.”~~

Make the following change:

SITE-BUILT FENESTRATION PRODUCTS are fenestration products designed to be fieldglazed or field assembled units comprised of specified framing and glazing components. Site-built fenestration is eligible for certification under NFRC 100-~~SB~~, and may include both vertical glazing and horizontal glazing.

Part 6, § 116(a)1.

Air leakage. Manufactured fenestration products and exterior doors shall have air infiltration rates not exceeding 0.3 cfm/ft.² of window area, 0.3 cfm/ft.² of door area for residential doors, 0.3 cfm/ft.² of door area for nonresidential single doors (swinging and sliding), and 1.0 cfm/ft.² for nonresidential double doors (swinging), when tested according to NFRC ~~400-95~~ or ASTM E 283-91 at a pressure differential of 75 pascals or 1.57 pounds/ft.², incorporated herein by reference.

Part 6, § 116(a)2.A.

Be certified for overall U-factors as rated in accordance with ~~the National Fenestration Rating Council's~~ NFRC 100 ~~(1997)~~ and be certified for overall SHGC, as rated in accordance with ~~the National Fenestration Rating Council's~~ NFRC 200 ~~(1995)~~, incorporated herein by reference, or such values shall be certified in accordance with Tables 1-D and 1-E and labeled as set forth in Section

ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004, only the November 2002 edition may be used for new product rating.

⁵ Either the 1995 edition or the November 2002 edition may be used for product rating prior to April 1, 2004. Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004, only the November 2002 edition may be used for new product rating.

⁶ Either the 1995 edition or the January 2002 edition may be used for product rating prior to April 1, 2004. Product ratings authorized by NFRC prior to April 1, 2004 are valid for the full certification period. Beginning April 1, 2004, only the January 2002 edition may be used for new product rating.

10-111...

EXCEPTION 1 to Section 116 (a) 2: Site-assembled vertical glazing in buildings covered by the nonresidential standards with less than 100,000 square feet of conditioned floor area or less than 10,000 square feet of vertical glazing shall have U-factors determined in accordance with NFRC 100-SB procedures or default values set forth in Appendix I of the Nonresidential ACM Manual.

EXCEPTION 2 to Section 116 (a) 2: Site-assembled vertical glazing in buildings covered by the nonresidential standards shall have SHGC values determined in accordance with NFRC 100-SB procedures or shall calculate the SHGC value for each vertical glazing...

Authority: Sections 25402 and 25402.1, Public Resources Code.
Reference: Sections 25402 and 25402.1, Public Resources Code.

Part 6, § 141(c)5.

Solar heat gain coefficients. Solar heat gain coefficients shall be determined using ~~National Fenestration Rating Council's~~ NFRC 200 ~~(1995)~~, or NFRC 100-SB as set forth in Section 116, and shall not be adjusted for the effects of interior or exterior shading devices.

Authority: Sections 25402 and 25402.1, Public Resources Code.
Reference: Sections 25402 and 25402.1, Public Resources Code.

Part 6, Appendix 1-A - STANDARDS REFERENCED IN ENERGY EFFICIENCY REGULATIONS

NATIONAL FENESTRATION RATING COUNCIL

NFRC 100	Procedure for Determining Fenestration Product U-factors (1997 November 2002; NFRC 100 includes procedures for site-built fenestration formerly included in a separate document, NFRC 100-SB)
NFRC 100-SB	Procedure for Determining Site-Built Fenestration U-factors and Thermal Performance Characteristics (2000)
NFRC 200	Procedure for Determining Fenestration Product Solar Heat Gain Coefficients at Normal Incidence (1995 November 2002)
NFRC 400	Procedure for Determining Fenestration Product Air Leakage (1995 January 2002)

Available from: National Fenestration Rating Council
~~1300 Spring Street, Suite 500~~
~~Silver Spring, Maryland 20910~~
~~(301) 589-6372~~
~~8484 Georgia Avenue, Suite 320~~
~~Silver Spring, Maryland 20910~~
~~Voice: (301) 589-1776~~
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~~Email: info@nfrc.org~~